

COSTS AND MAIL

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R.M.



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Indre application of:
Bobbie Joe Bowden

Serial No: 08/050,527

Filed: April 19, 1993

For: AUTOMATIC DRILLING SYSTEM

§ Atty. Docket No:
§ B-0106.01
§
§ Examiner:
§ F. Tsay
§
§ Group Art Unit:
§ ~~2506~~ 350
§

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AMENDMENT AFTER FINAL UNDER 37 CFR §1.116

COMMISSIONER OF PATENTS
AND TRADEMARKS
Washington, D.C. 20231

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Sir:

Applicant timely responds to the Final Office Action dated
August 10, 1994 as follows:

IN THE SPECIFICATION:

/ On page 35, line 8, delete "a" and substitute therefor --an--.

IN THE CLAIMS:

3. (amended) [An] The automatic drilling system [for
automatically regulating the release of the drill string of a
drilling rig during the drilling of a borehole,] according to claim
1 further comprising:

a drill string torque sensor;

a drill string torque regulator coupled to said drill string
torque sensor, said drill string torque regulator
measuring changes in drill string torque and outputting
a signal representing those changes;

a relay coupled to said drill string torque regulator, said
relay responsive to the output signal of said drill
string torque regulator to supply a drill string control
signal at an output thereof; and

a drill strings controller coupled to said relay wherein a
decrease in drill string torque results in said relay
supplying a drill strings control signal that operates
said drill strings controller to effect an increase in
the rate of release of said drill string and an increase

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CERTIFICATE OF EXPRESS MAIL

I hereby certify that the foregoing documents are being deposited in the United States Postal Service as Express Mail, postage prepaid, in an envelope addressed to the Commissioner of Patents and Trademarks, Washington, D.C. 20231.

Express Mail No: TB688211777US Date: 11/07/94

Ana I. Robinson
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